

# Study and prioritization of key factors impacting job motivation in a project-based organization in oil and gas industry

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## Abstract

This research seeks to study and prioritize the factors that impact job motivation based on an analytical hierarchy process. This research has been carried out in an oil and gas industry-related organization during a period in 2013. Two questionnaires were used to conduct the study: 1) one questionnaire based on Herzberg's motivation theory, and 2) the second questionnaire is used for paired comparison analysis of factors affecting job motivation and their prioritization. The method used for prioritization is hierarchy analysis and Expert Choice and SPSS software packages are used for data analysis. This research found that almost all experts and participants agreed on the factors affecting motivation. We found that the two factors-salary and job security are the most important and the factors, work environment condition and the level of responsibility, are the least important ones. Therefore, the organization can improve employees' performance by investing on the salary, job security factors, and enable reaching its objectives.

**Keywords:** Motivation, Herzberg's motivation theory, analytic hierarchy process, oil and gas industry

## Introduction

Motivation means dynamism and movement. From an organizational point of view, motivation is defined as such: An internal factor that leads to a change in the behavior and advancement in organization's goals. Organization resources are categorized as human and nonhuman resources. Since human resources use materials, optimal use of such resources is impossible without having a motivated

human resource (Bahadori, 2013). To achieve these goals, first, the motivating factors should be identified and then they should be realized. It is obvious that due to individual differences, their motivations are also different. Thus, before any attempt to create motivation, it is necessary to identify individuals' characteristics to be able to identify their motivating factors (Hazaveh and Samadi, 2005).

Job motivation is one of the most important factors in the success or failure of a system and neglecting it results in the loss of organization's resources. A study showed that the success of an organization is 20% due to its efforts and 80% due to its motivation. Nowadays, the most challenging obstacle in face of the management is to encounter unmotivated and less responsible work force (Houman, 2002).

In terms of job satisfaction and motivation factors of individuals, there are various theories categorized in two main groups: 1) content theories that discuss the content of job satisfaction and motivation, such as Maslow's theory and Herzberg's theory, and 2) process theories that involve its process, such as Adams and Vroom's theory (Karimi, 2002). Herzberg's theory is the most common theory discussing job satisfaction and motivation. Herzberg believes job motivation is influenced by both internal and mental factors (motivation stimulating factors) and external and hygiene factors (motivation maintaining factors) whose study can identify the most important job satisfaction factors. These factors can also be utilized in organization upgrade programs (Mirhoseini, 2013). Thus, due to the existence of various definitions and theories before researchers, to investigate the motivation, those theories that better take into account the environmental conditions are preferred in such a study. In this study, we have used Herzberg's theory since it includes a classification of both individual and job-related factors.

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To increase the productivity and employees' job satisfaction, we should first identify the affecting factors on job motivation. This can lead to improving productivity, achieving organization goals, and creating an exciting work environment. Accomplishing a dynamic and healthy organization is possible by having mentally and physically healthy employees. In such an organization, human resources is the most important organization's tool and therefore, special attention should be given to the factors creating motivation in human resources (Monjamed, 2004).

Therefore, due to the importance of this topic, this study seeks to investigate job motivation factors and their prioritization using a hierarchy analysis method based on Herzberg's theory. Based on the findings of this research, we can embark on con-

ducting an appropriate planning to better achieve organization goals.

## Methodology

This is an analytical-descriptive research that has been conducted during a period in the year 2013 in a company involved in the area of oil and gas.

First, certain motivation factors were considered based on Herzberg's two-factor theory. Then, based on consultations with experts of oil and gas industry, the more important factors were selected.

To identify the key factors affecting motivation, a questionnaire with seven factors was prepared and distributed among ten oil and gas industry experts (Table 1).

**Table 1. Participants' opinions about motivation factor.**

SD	M	Participants' Opinions					Motivation Factors	
		Completely disagree	Disagree	Neutral	Agree	Completely agree		
0.422	4.8				2	8	Salary and wages	1
0.422	4.8				2	8	Job security	2
0.488	4.7				3	8	Responsibility level	3
0.707	4.5			1	3	8	Work environment conditions	4
0.483	4.7				3	7	Communication with others	5
0.823	4.7			1	1	8	Appreciation	6
1.317	4.2			1	2	7	Interest in the join	7

Four senior managers confirmed the validity of this questionnaire. Its consistency was also confirmed based on its Cronbach's alpha that was found to be 0.83. The next step of this research was to prioritize the job motivation factors. To this end, a second questionnaire was prepared using the paired comparison matrix using analytic hierarchy process (AHP)

This questionnaire had two sections: the first section involved asking the participant's personal information, and the second section included 21 questions to identify the participant's priority in terms of motivation creation factors.

The priority level was illustrated by paired comparison of two factors with the following identifying numerical values (Table 2).

- 1 (equal importance)
- 3 (slightly more important)
- 5 (more important)
- 7 (much more important)
- 9 (extremely more important)

**Table 2. The comparison of the level of significance of two factors in AHP method.**

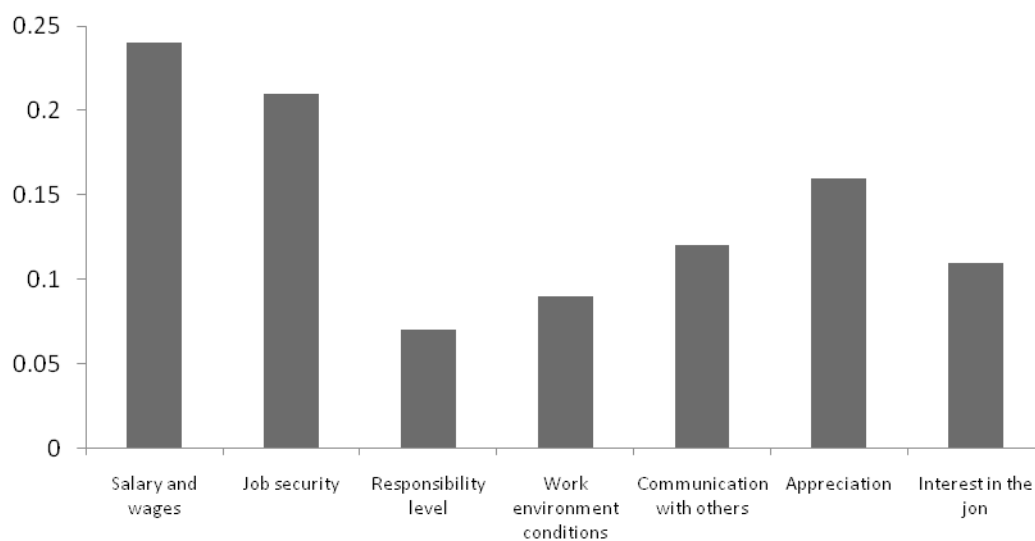
Significance level in Paired Comparison	Numerical Value
Equal Importance	1
Slightly more important	3
more important	5
Much more important	7
Extremely more important	9

Analytic hierarchy process (AHP) is a decision making method (Shafi Abadi, 2011). In this method, the problem at hand is first structured, and then the available alternatives are compared and given priorities based on the defined criteria. Thus, the first step is to construct the decision tree that includes three main sections: 1) the first layer of the tree includes the goals of the decision maker. 2) The last layer of the tree is the alternatives that are compared and receive quantified priorities. 3) The intermediate layer offers the criteria based on which the comparison is made. In this process, columns are compared with respect to rows.

Since in the AHP method the criteria are compared two at a time, the participants were asked to compare each criterion with all other ones and identify its importance with regards to the other criteria.

## Results

This research found that almost all experts and participants agreed on the factors affecting motivation. All the participants were male with an average age of 30 years old and 90% of them has a bachelor's degree or higher.



**Figure 1. Prioritization of key factors influencing job.**

The results of the motivation factor study showed that the factors of wage and salary and job security gained the highest priority with numerical values of 0.24 and 0.21, respectively. The two factors of work environment condition and the responsibility level gained the least priority with numerical values of 0.09 and 0.07, respectively.

## Discussion

Job satisfaction is how an individual view his/her job conditions. An individual with a high job satisfaction is happy with his/her job, and on the other hand, an individual with lower job satisfaction, has a lower job motivation. Job satisfaction directs the internal motion of the employees in an organization. Thus, the study of the job satisfaction factors in an organization is of utmost importance. Employees are willing to see that the upgrading sys-

tem, appointments, guidelines, and the payment be fair and proportional to each individual's tasks and responsibilities. In this case, employees will feel higher levels of job satisfaction. Many studies have investigated the impact of motivation (mental) and hygiene factors on job satisfaction and motivation of the employees. Some studies confirm Herzberg's theory that mental or motivation factors are more important than hygiene (external) factors while others have found external factors to be more important. It should be noted that job satisfaction has a positive impact on the society; if the employees are satisfied with their jobs, they will try towards the health of their society, because health and joy will be transmitted from work environment to people's houses. Studies have also shown that with higher levels of job satisfaction, creativity and productivity will also increase, job motivation will rise and job attendance rate will go up. People have different

motivations and their motivations change over time. Being aware of employees needs in an organization is useful in predicting and interpreting their motivations. This should not be overlooked since motivation is the main drive behind all activities.

Paying attention to employee's motivation, particularly, the study of the impact of different factors on job motivation is an accepted principle in scientific communities and various studies have been conducted to investigate their importance and impacts. This study seeks to investigate job motivation factors and their prioritization using an analytic hierarchy process in an organization involved in the area of oil and gas industry.

In the present research, salary and wages, job security, and appreciation have been identified as high priority factors from employees' perspective.

Based on the findings, special attention should be given to two factors of salary and job security that are both among hygiene factors. Based on Herzberg's theory, these factors are not directly related to individual's activities. However, when these factors lose their quality, it causes employee's job dissatisfaction. The results of this study disagree with Herzberg's work because he believes the hygiene (external) factors should be present. Their lack will not cause any problem, but motivation (internal) factors are encouraging for employees.

## Conclusion

The findings of this paper suggest that in order to achieve the main pre-specified goals of the organization and maintain its dynamism, the management staff of each organization should paint a more comprehensive picture of their employees' job satisfaction to find the priority of the impacting fac-

tors on employee job motivation. This leads to the improvement of employees' talents and creativity by providing job security and paying attention to their living and economic problems. This way the management can establish the necessary foundation to achieve organization's goals, employees' satisfaction, and their better performance.

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